

## Signposts for the third stage maze: Making informed choices.

### The Third Stage of Labour

The third stage of labour extends from the birth of the baby to the expulsion of the placenta and membranes.<sup>1</sup> Modern midwifery and obstetric management of the third stage varies significantly between countries, states, domains and practitioners. Care given to the birthing woman and neonate has evolved from an eclectic combination of historical, anecdotal, philosophical and research-based factors.<sup>2</sup> This stage of the birth is identified as a time of great potential hazard and caregivers must make choices about whether to take an active approach, an expectant (physiological approach), or a combination of both approaches.<sup>3</sup>

### Methods of Management

Active management of third stage involves administration of a prophylactic oxytocic to the mother by intramuscular injection after birth of the baby, early clamping and cutting of the baby's umbilical cord, and application of controlled cord traction (CCT) to deliver the placenta. Expectant or physiological management involves allowing the placenta to deliver spontaneously, or aided by gravity and/or nipple stimulation.<sup>4</sup>

### The Third Stage Maze

"The Third Stage Maze: Which Practise Pathway for Optimal Outcomes" was published in the "The Practising Midwife" (UK) in April 2001. This paper provides a historical overview of the obstetric invention of the management of the third stage of labour. It examines the natural physiology of the third stage of labour, and the modern interventions which are now routinely employed in most maternity settings in the developed world. Research-based details are provided on the use of oxytocics, cord clamping and controlled cord traction.<sup>2b</sup> The findings of the biggest randomised trial to date (the Hinchingsbrooke Trial<sup>5</sup>) which eventually advocated the use of active management using syntocinon (not syntometrine) as the oxytocic of choice are provided. The issue of obtaining the informed consent of the birthing women regarding their preferred method of management of third stage is also addressed.

### Delayed Cord Clamping

The Third Stage Maze highlights concerns about the practise of immediate clamping of the umbilical cord as part of the active management of third stage. The evidence in favour of delayed cord clamping to allow placental transfusion of the baby immediately after birth is compelling. **The WHO officially endorsed the practise of delayed cord clamping<sup>6</sup>** in 1996 and in February 2002 the **American College of Obstetricians and Gynaecologists withdrew its directive for immediate cord clamping (Bulletin 216).**

Delayed cord clamping provides physiological benefits to the baby, and psychological and emotional benefits to the mother. These factors should compel caregivers to honour the sanctity of the mother/baby union during the moments that the newborn is between two worlds and the mother is seeing and experiencing her child for the first time. Unnecessary interference should be avoided. However, many obstetric and midwifery practitioners feel very uncomfortable about deviating from the familiar practise pathway of active management, and continue to clamp and cut the baby's umbilical cord immediately after birth.

### **Active Management**

*"Active management of third stage has evolved as much out of a philosophy or approach to childbirth as from medical necessity: a philosophy in which convenience is a major priority and to stand by and do nothing is almost inconceivable."<sup>7</sup>*

Active management of the third stage of labour is a flow on from the active management of the first and second stages of labour. Induction and augmentation of labour by artificial rupture of the membranes, and/or intravenous oxytocic infusion, imposed time frames for progress of labour, medications for pain relief and sedation, CTG monitoring, forceps rotation and delivery, vacuum extraction, emergency or elective caesarean sections are examples of interventions which are all to do with control. **CONTROL in the hands of the caregivers, not the woman.** Of course many interventions are lifesaving, necessary actions in certain situations. If the first and/or second stages of a labour have been actively managed, it is entirely appropriate that the third stage should be actively managed also, because the natural physiology of the birth process has been disrupted.

### **Physiological Management**

In a physiological third stage of labour, as a natural progression from a natural, normal physiological labour -- the woman is in control. She is in tune with and has faith in her body's natural ability to complete the birth of her baby. As in the labour, the midwife's role is to support that process - not control it. The midwife is trained to detect problems and to take actions to ensure the safety of the mother and baby. The midwife is entrusted with this responsibility as an integral part of the relationship. It should be a partnership, not a dictatorship. <sup>8</sup>

### **Benefits of a physiological third stage of labour**

Delayed cord clamping allows the baby to receive his or her full blood volume and optimal iron stores (Prendiville and Ellbourne, 1989, Inch, 1983). This may be as much as 40% circulating volume and is important in maintaining haematocrit levels (Yao & Lind, 1974). Early cord clamping deprives the baby of 75-125mls of transfused blood. (Bristol Trial, 1988, and Hinchingsbrooke Trial 1998).

With delayed cord clamping the placenta is less bulky, and more readily expelled (Dunn et al. 1966). Delayed cord clamping allows the baby's lifeline to continue to supply oxygenated blood, facilitating perfusion of the lungs, and supporting the baby's transition to breathing for himself without incurring oxygen deprivation. The baby is less likely to require resuscitation after birth, and less likely to have idiopathic respiratory distress. (The term *Ideopathic Respiratory Distress* describes breathing difficulties for no apparent reason, and is believed to be linked to interference with the delicate and complex changes in the baby's heart and circulatory systems - Dunn, 1989; Inch, 1983)

Delayed cord clamping reduces the risk of feto-maternal transfusion, which is especially important for Rh negative mothers. (Lapido, 1971; Rogers et al, 1998). Delayed cord clamping reduces the risk of infection in both the mother and the baby because the mother has reduced clot formation if the maternal end of the cord is not clamped, and the baby has less stagnant blood left in the cord stump. Clots and stagnant blood provide an ideal environment for infection. The cord may separate more rapidly postnatally if cord clamping is delayed (Sleep, 1993).

Avoiding controlled cord traction eliminates the risk of pulling out an incompletely separated placenta, tearing or snapping the cord, partial or full inversion of the uterus, and pain associated with uterine handling, which also interferes with the myometrial action of the uterus which maintains uterine tone.<sup>8b</sup>

The woman and baby can remain undisturbed and unhurried, enhancing bonding opportunities, facilitating early breastfeeding and maximising hormonal balance.

### **Safe Natural Birth**

Physiological - or expectant - or passive - management of the third stage of labour can be a safe option for **healthy** women experiencing **normal** labour.

That is, where the woman's natural chemistry has determined the course of the labour. (Physiological third stage management is not considered safe for labour influenced by intravenous oxytocic drugs).

It is important that the woman has been healthy throughout her pregnancy and is not anaemic. A haemoglobin (Hb) of 9-9.5g/dl is associated with optimal perinatal outcomes.<sup>9</sup>

The woman must have full information and the opportunity for discussion antenatally on the facts associated with active and physiological management. The woman can then make an informed choice. During the Hinchingbrooke Trial researchers found "when physiological management is offered to women as a reasonable option, many will choose it".<sup>5b</sup>

The woman must understand the need for a flexible approach to be adopted by herself and her midwife according to what else occurs in the labour and birth. If an oxytocic is indicated it needs to be given without hesitation. The consequence of giving an intramuscular oxytocic will probably require active management of the birth of the placenta.<sup>8c</sup> This needs to be understood by the birthing woman, as well as the midwife.

The midwife who will attend the birth must be knowledgeable and competent in the physiological management of the third stage of labour. This may be stating the obvious, but the reality is most midwives have had little or no experience of true physiological third stage. Research has shown that some doctors and midwives considered to be "heavy handed" had much higher rates of postpartum haemorrhage.<sup>8d</sup>

The provision of a **warm** environment, where the woman's interaction with her newborn must be **undisturbed** is an integral component of a physiological third stage of labour. Such an environment facilitates the release of endogenous oxytocics. If the woman is cold her levels of catecholamines (adrenaline and noradrenaline) rise, increasing the risk of postpartum haemorrhage.<sup>9b</sup> The value of minimising disturbance to the physiological process of birth was supported by a NZ study of 213 home births - PPH rate of 3.3%, and no women required manual removal of the placenta.<sup>8e</sup>

### **Guidance for Midwives**

As a guide to midwives, the **PROCESS** of a physiological third stage is more about what you don't do, rather than what you do. **It is imperative that a competent midwife is present at every birth**, and that oxytocics are drawn up ready to be given swiftly if indicated. All birth equipment (cord clamps, cord scissors, oxygen and suction) must be ready for use as required, along with warmed wraps for baby and mother.

It is essential that the birth is natural and normal. The woman is allowed time to observe, respond to and pick up and hold her baby at birth in her own time. If the birth is on "dry land" this may mean leaving the baby between the mother's legs allowing placental transfusion to the baby through the unclamped cord, and time for the baby to respond to the stimuli of light, sound and air/cold and to take his first breath. The mother will pick up her baby in her own time. If all is well these moments should be undisturbed by anyone.

If the birth is under water a similar process occurs, but the woman is instinctively more inclined to lift the baby to the surface and hold it. When she is ready to interact with others she can be helped from the water to a prepared resting place close by, kept warm, and facilitated to explore and suckle her baby in undisturbed comfort. There is no real need to clamp the cord which looks paler and thinner as pulsation decreases. While the placenta is still attached and functioning there will be oxygenated blood transferring to the baby, and as the baby's circulation changes from one sided heart function (intrauterine) to two sided heart function (extrauterine), causing the foramen ovale to close, the baby's umbilical arteries will have closed eliminating the risk of the baby bleeding back through the cord.

The woman's blood loss is closely observed. Normal blood loss requires no action, however if it is heavy the height, shape and tone of the uterus should be checked by gently placing a hand on the fundus. If uterine tone is poor the routine midwifery action of fundal massage should be applied, followed by oxytocic administration if the uterus is unresponsive to fundal massage. (In this event the third stage of labour should then be completed by active management.)

Close contact and the baby suckling at the breast stimulates natural oxytocic release and uterine contractions. After the birth of the baby the uterus reduces in size by about half, and continues contracting, forcing the placenta to peel off the uterine wall. It falls into the lower segment of the uterus. If no artificial oxytocic has been given the cervix remains sufficiently open to allow the placenta to move into the vagina in response to the uterine contractions. The "signs of separation" may be observed - a trickle of fresh blood, and lengthening of the umbilical cord. The woman usually responds to the discomfort of these contractions and the sensation of the placenta coming into her vagina by moving herself into a more upright position, standing or squatting and the placenta is expelled by maternal effort NOT BY CORD TRACTION. The cord may or may not have been cut prior to this event, depending on the woman's requests and wishes. No specific time frame is dictated for these events to occur, however Michel Odent's practise is to allow an hour. He states in his paper "Don't Manage The Third Stage of Labour" the placenta is ALWAYS born in that time if the physiological process is undisturbed.<sup>9c</sup>

It is important that the midwife resist over-assessing the process of the physiological third stage. Feeling the cord for pulsations and observing for signs of separation can be disruptive to the woman's delicate chemistry balance. The application of even gentle traction to the cord is an intervention, pre-empting a response. It is interfering with the physiological process and the exquisitely individual timing of that birth process.

### **True Informed Choice**

As women explore, realise and reclaim their ability to give birth in their own power, they naturally challenge their caregivers to trust their ability to complete the birth process physiologically, without unnecessary interference.

In Australian maternity settings there is often no choice given to birthing women about whether they'd prefer to have physiological or active management of the third stage of their labour. Their care is dictated by hospital protocols and doctors' orders. Informed consent requires full, factual information of all options pertaining to a decision. How many women are given **all** the information about active or physiological management of the third stage of their labour? How many really get a choice? **Lois Wattis, RN, RM, IPM, FACM, IBCLC**

### **References**

1. Llewellyn-Jones. (1994). *Fundamentals of Obstetrics and Gynaecology* (6<sup>th</sup> ed.). London: Mosby.
2. Wattis, LJ, (2001) *The Third Stage Maze - Which practise pathway for optimal outcomes? The Practising Midwife*, 4:4, p23-27.
3. Enkin, M., Keirse, M.J.N.C., Renfrew, M.J., & Neilson, J.P. (1995). *A guide to effective care in pregnancy and childbirth* (2<sup>nd</sup>.ed.). Oxford: Oxford University Press.
4. Prendiville, W.J., Elbourne, D. & McDonald, S. (1998). *Active versus expectant management of the third stage of labour* (Abstract) <http://www.update-software.com/ccweb/cochrane/revavstr/ab000007.htm>
5. Rogers J., Wood J., McCandlish R., Ayers S., Truesdale A., Elbourne D., (1998) *Active versus expectant management of third stage of labour: the Hinchingsbrooke randomised controlled trial*, *Lancet* Vol 351 March 7, P693-699.
6. World Health Organisation (1996) *Care in normal birth: a practical guide*, Report of a Technical Working Group, WHO/FRH/MSM/96.24, Geneva
7. Bastion, Hilda (no date) *Beyond Leboyer: A natural third stage*. Source unknown
8. Edwards, N.P., (1999) *Delivering your placenta - The third stage*. AIMS Publication.
9. Odent, M. (1998) *Don't manage the third stage of labour!* *Practising Midwife*; 1:9, p31-33

*For further information:*

[www.birthjourney.com](http://www.birthjourney.com)   [www.cordclamping.com](http://www.cordclamping.com)   [www.gentlebirth.org.au](http://www.gentlebirth.org.au)